

**DEPARTMENT OF TRANSPORTATION**

ESC/OE MS #43  
1737 30TH. Street 2ND. Floor  
SACRAMENTO, CA 945816



August 20, 1999

04-SF-80-5.5/7.8  
04-0435U4

Addendum No. 5

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in THE CITY AND COUNTY OF SAN FRANCISCO AT SAN FRANCISCO-OAKLAND BAY BRIDGE FROM 0.2 MILE WEST OF SAN FRANCISCO ANCHORAGE TO EAST END OF YERBA BUENA TUNNEL.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on September 8, 1999.

This addendum is being issued to the Project Plans and the Notice to Contractors and Special Provisions.

Project Plan Sheets 58, 119, 121, 124, 125, 128, 129, 132, 133, 134, 195, 291, 299, 312, 416, 608, 609, 610, 611, 612, 613, 614, 615, 616, 728, 731, 734, 736, 739, 741, 744, 745, 751, 770, 771, 778, 779, 780, 781, 782, 783, 784, 785, 790, 791, 800, 823, 825, 884 and 983 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 614A, 785A, 785B, 785C and 798A are added. Half-sized copies of the added sheets are attached for addition to the project plans.

Project Plan Sheets 100A, 100B and 100C, in the box entitled "Light Support Locations and Mounting Details" under "Legend" Type VIII is revised to Type VII.

On Project Plan Sheet 120, in "Part Plan-Lower Deck Layout", at L37, the phrase "Exp Jt" is deleted.

On Project Plan Sheet 768, the following note is deleted:

"Note: D6-H Bracket for use on South end of listed expansion joint floorbeam: L40."

In the Special Provisions, Section 10-1.01, "Order of Work", is revised as follows:

"10-1..01 ORDER OF WORK

The Contractor's attention is directed to "Obstruction", elsewhere in these special provisions.

The Contractor's attention is directed to the existence of environmental restrictions that require special precautions be taken by the Contractor to protect the American peregrine falcon, double-crested

cormorants (DCCO), and western gull nesting sites. In addition, this includes the harbor seal haulout on Yerba Buena Island. The harbor seals are protected by the Marine Mammal Protection Act (MMPA). It is the Contractor's responsibility to keep informed of all State and Federal Laws.

The Contractor shall comply with the Federal Endangered Species Act, the California Endangered Species Act, the State Endangered Species Act, and the Federal Migratory Bird Treaty Act, which govern protection of the nesting sites of peregrine falcon, double crested cormorants (DCCO), and western gull. This includes the Marine Mammal Protection Act (MMPA) which protects the harbor seal haulout on Yerba Buena Island. Prior to the start of work, the Contractor shall provide the Engineer with a proposed work schedule.

A pair of peregrine falcons (federal and state endangered) nest on the west bay spans of the San Francisco/ Oakland Bay Bridge (SFOBB) and are protected by the Endangered Species Act (ESA). The peregrine falcons will be monitored by the Santa Cruz Predatory Bird Research Group (SCPBRG) during construction between January 1st and July 31st each construction year. The Contractor shall provide access to the nesting site for the SCPBRG biologist to monitor the nest site, and remove the falcon eggs and/or chicks.

DCCO are afforded protection during their annual nesting season under provisions of the Federal Migratory Bird Treaty Act (MBTA). DCCO nesting season extends from March 1<sup>st</sup> through September 15<sup>th</sup>. When working on the SFOBB, the Contractor must continuously prevent the DCCO from constructing and completing nests. These preventative measures include daily washing away of the nesting materials and/or otherwise excluding the birds from the work areas. Should nests be completed and eggs laid or chicks hatched, work impacting the birds/eggs or nests must cease. Nests, eggs, and chicks may not be removed or destroyed. Adult and chick DCCO must have access to the nests at all times., The DCCO colony will be monitored by the Caltrans staff and/or Point Reyes Bird Observatory seabird biologist(s) during the nesting season.

Western gulls nest on the SFOBB, Bridge No. 34-0003, between April 1<sup>st</sup> and September 30<sup>th</sup>. If any work is anticipated on said structure during this period, the Contractor shall take such measures as necessary to prevent nesting. Prior to April 1<sup>st</sup>, existing old nests shall be removed and exclusionary devices such as netting or panels installed. After April 1<sup>st</sup>, incomplete nests shall be removed on a daily basis and exclusionary devices installed at those sites. If new nests are completed or existing nests become occupied, no work that interferes with or discourages gulls from returning to their nests will be permitted. No extension of time nor compensation will be granted for a suspension of work due to nesting birds. Full compensation for preventing nesting shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

Western gulls and DCCO attempting to nest on the SFOBB are protected by the MBTA during the aforementioned time periods. The MBTA allows the "scaring" and "herding" of adult birds during the nesting season, but not "taking" them. "Taking" is defined as destroying nests, or nests with eggs, physically injuring or killing chicks, and interfering with the adult birds' ability to incubate and brood and feed chicks. "Scaring" and "herding" shall only apply to the adult birds prior to egg laying and chicks hatching. "Scaring" and "herding" are defined as frightening the adult birds who are attempting to construct nests, but not physically harming or "taking" them. To "frighten" means causing the adult birds to leave the nest and eggs or young unattended. The absence of the adult can lead to loss of eggs and chicks, therefore resulting in "taking" the species, which is illegal.

Any delays caused by the Contractor's failure to protect work areas from nesting birds will be at his or her expense. It is the Contractor's responsibility to protect the project from known circumstances that could delay the project, or bear the losses from such a delay.

The Contractor is directed to the Environmentally Sensitive Area (ESA), a harbor seal haulout, on the southwest side of Yerba Buena

Island. All activities are excluded from the shoreline extending out in a radius of 300 meters from the harbor seal haulout. The harbor seals are protected by MMPA.

Temporary railing (Type K) shall be in place at locations shown on the plans prior to starting any adjacent construction activities.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

The first order of work shall be to place the order for the electrical facilities' equipment (seismic retrofit). The Contractor shall furnish the Engineer with a statement from the vendor that the order for said equipment has been received and accepted by said vendor.

The following electrical systems shall not be modified until the replacement system has been installed and fully tested. Temporary system support is permitted only with the Engineer's prior written approval of the Contractor's written temporary support proposal.

1. The 15kV cable system between the Sterling Substation and the Pier W-4 Substation.
2. The Bridge phone system between the west bay paint yard to the Pier W-7 splice cabinet.
3. The Beale Street 15kV to 480V conversion system.
4. All Navigational lighting system at each location or subsystem.

The work shall be performed in conformance with the stages of construction shown on the plans. Nonconflicting work in subsequent stages may proceed concurrently with work in preceding stages, provided satisfactory progress is maintained in the preceding stages of construction.

All contract work between Pier W1 and the San Francisco Anchorage except the installation of the viscous dampers shall be diligently pursued to completion on or before January 31, 2001, beginning at 12:01 a.m. on the first working day after contract award. In the event that all contract work between Pier W1 and the San Francisco Anchorage is not completed by January 31, 2001, damage will be sustained by the State of California and it is and will be impracticable and extremely difficult to ascertain and determine the actual damage. It is therefore agreed by the parties that for each and every calendar day's delay in completing all contract work between Pier W1 and the San Francisco Anchorage, the Contractor will pay to the State the sum of \$5200 per day as liquidated damages. The Contractor agrees to pay the liquidated damages herein provided for, and further agrees that the Department may deduct the amount thereof from any moneys due or that may become due the Contractor under the contract.

Replacement of the bearings at Pier W1 shall be completed prior to retrofitting continuous truss chord L0-L1.

The Contractor shall be prepared to provide lane closures as per sections 10-1.12, "Maintaining Traffic," and 10-1.13, "Traffic Control System for Lane Closure," elsewhere in these special provisions within 5 days after award of the contract. If the Contractor fails to provide lane closures within specified time, lane closures will be provided by the State and cost of lane closures will be deducted from the money due to the Contractor."

In the Special Provisions, Section 10-1.04, "Cooperation", the fourth paragraph is replaced with the following paragraphs:

"Contracts which may be in progress during the working period of this contract include but are not limited to the following:

Contract No. 04-043544. Work is located on Route 80 on the San Francisco-Oakland Bay Bridge from Pier W-2 to Pier W-6. This is a seismic retrofit of the pier foundations. Construction is scheduled to be completed in Spring 2000.

Contract No. 04-043554. Work is located on Route 80 at the San Francisco-Oakland Bay Bridge. This is a seismic retrofit of the anchorages. Construction is scheduled to begin in Summer 1999.

Contract No. 04-043474. Work is located on Route 80 on the San Francisco-Oakland Bay Bridge at the Yerba Buena Island Tunnel approach. This is a seismic retrofit project. Construction is scheduled to be completed in Spring 2000.

Contract No. 04-133334. Work is located on Route 80 between Fourth Street and the San Francisco Anchorage. This is a seismic retrofit project of the San Francisco-Oakland Bay Bridge approach. Construction is scheduled to begin in early 2001, and is scheduled to be under construction for six years.

Contract No. 04-0434L4. Work is located on Route 80 on the San Francisco-Oakland Bay Bridge at the Yerba Buena Island Tunnel. This is a seismic retrofit project. Construction is scheduled to begin construction in late 1999, and is scheduled to be under construction for one year.

Contract No. 04-043004. Work is located on Route 80 on the San Francisco-Oakland Bay Bridge east of the Yerba Buena Island Tunnel. This is a seismic retrofit project. Construction is scheduled to be completed in Spring 2000.

Contract plans and specifications for Contract Nos. 04-043544, 04-043554, 04-043474, and 04-043004 are available for inspection at the office of the Toll Bridge Program Duty Senior at 111 Grand Avenue, Oakland, California 94612, telephone number (510) 286-5549."

In the Special Provisions, Section 10-1.22, "Existing Highway Facilities" is revised as follows:

"10-1.22 EXISTING HIGHWAY FACILITIES

The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

The Contractor shall provide and install temporary deck bridging during the tower lower deck strut modifications while the Pacific Bell Line is being relocated. Temporary deck bridging shall conform to the requirements in "Temporary Deck Bridging" of these special provisions.

At the Contractor's option, expansion gratings removed during the work shift shall be restored to their original location at the end of each work shift or temporary deck bridging shall be provided and installed to the bridge deck gaps. Temporary deck bridging shall conform to the requirements in "Temporary Deck Bridging" of these special provisions.

Difficult construction operations are anticipated due to restricted access to areas of the existing structure. Construction operations include, but are not limited to, rivet removal, steel erection, bolt installation, welding, spot blast cleaning and painting.

Plans of the existing bridge, including electrical work, scaffolding and travelers may be requested by fax from the Toll Bridge Retrofit Program Duty Senior at District 04 Office, 111 Grand Avenue, Oakland, California 94612, Fax (510) 286-4563.

Plans of the existing bridge, pertaining to the work required by this contract and available to the Contractor, are reproductions of the original contract plans and working drawings and do not necessarily show normal construction tolerances and variances. Where dimensions of new construction, required by this contract, are dependent on the dimensions of existing bridges, the Contractor shall verify field dimensions for all members prior to submitting working drawings and ordering, fabricating or installing material. The Contractor shall be responsible for adjusting dimensions of the work to fit existing conditions.

The Contractor shall certify in writing that field dimensions have been verified and shall include the certification with the working drawing submittal. Full compensation for conforming to the above requirements shall be considered as included in the contract prices paid for the various contract items of work and no additional compensation will be allowed therefor.

Attention is directed to Section 7-1.06, "Safety and Health Provisions," of the Standard Specifications. Work practices and worker health and safety shall conform to the Cal/OSHA Safety Orders Title 8, of the California Code of Regulations including Section 5158, "Other Confined Space Operations."

The existing paint systems on Bridge Number 34-003 consist of lead, chromium and zinc. Any work that disturbs the existing paint system will expose workers to health hazards and will (1) produce debris containing heavy metal in amounts that exceed the thresholds established in Titles 8 and 22 of the California Code of Regulations or (2) produce toxic fumes when heated.

Existing debris produced from previous paint removal operations, deterioration of the existing paint system and road grime is present on structural members and appurtenances of the bridge. The existing debris contains heavy metal in amounts that exceed the thresholds established in Titles 8 and 22 of the California Code of Regulations. Any work that disturbs the existing debris will expose workers to health hazards.

Two reports, entitled "San Francisco-Oakland Bay Bridge West Tower Debris Investigation-Summary" and "San Francisco-Oakland Bay Bridge West Tower Debris Investigation" respectively, are included in the "Materials Information" available to the Contractor as provided for in Section 2-1.03 "Examination of Plans, Specifications, Contract, and Site of Work," of the Standard Specifications.

Debris, consisting of (1) debris produced when the existing paint system is disturbed, (2) existing debris disturbed by the Contractor's operations, or (3) mixture of existing debris and debris produced when the existing paint system is disturbed, shall be contained as specified herein.

**DEBRIS CONTAINMENT AND COLLECTION PROGRAM.**—Prior to starting work, the Contractor shall submit to the Engineer a debris containment and collection program in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. The program shall identify materials, equipment and methods to be used and shall include working drawings of any containment system, loads applied to the bridge by any containment structure, and provisions for ventilation and air movement for visibility and worker safety.



At the option of the Contractor, existing debris may be removed from the work surfaces prior to starting work that may disturb the existing debris. Methods of removal shall minimize heavy metal from becoming airborne. Compressed air or water shall not be used to remove existing debris without an approved debris containment and collection program.

If the measures being taken by the Contractor are inadequate to provide for the containment and collection of debris, the Engineer will direct the Contractor to revise the operations and the debris containment and collection program. The directions will be in writing and will specify the items of work for which the Contractor's debris containment and collection program are inadequate. No further work shall be performed on the items until the debris containment and collection programs are adequate and, if required, a revised program has been approved for the containment and collection of debris produced when the existing paint system is disturbed.

The Engineer will notify the Contractor of the approval or rejection of any submitted or revised debris containment and collection program within 2 weeks of submittal of the Contractor's program or revised program.

The State will not be liable to the Contractor for failure to approve all or any portion of an originally submitted or revised debris containment and collection program, nor for any delays to the work due to the Contractor's failure to submit acceptable programs.

**SAFETY AND HEALTH PROVISIONS.**--Attention is directed to Section 7-1.06, "Safety and Health Provisions," of the Standard Specifications. Work practices and worker health and safety shall conform to the Construction Safety Orders Title 8, of the California Code of Regulations including Section 1532.1, "Lead."

Prior to starting work that disturbs the existing paint system, disturbs the existing debris, or combines the existing and produced debris and at such times when revisions to the program are required by Section 1532.1, "Lead," the Contractor shall submit the compliance programs required in subsection (e)(2), "Compliance Program," of Section 1532.1, "Lead," of the Construction Safety Orders to the Engineer in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. The compliance programs shall include the data specified in subsections (e)(2)(B) and (e)(2)(C) of Section 1532.1, "Lead." Approval of the compliance programs by the Engineer will not be required. The compliance programs shall be reviewed and signed by a Certified Industrial Hygienist (CIH) who is certified in comprehensive practice by the American Board of Industrial Hygiene (ABIH). Copies of all air monitoring or jobsite inspection reports made by or under the direction of the CIH in accordance with Section 1532.1, "Lead," shall be furnished to the Engineer within 5 days after date of monitoring or inspection.

The CIH shall not be employed or compensated by any subcontractor, or by other persons or entities hired by subcontractors, who will provide other services or material for the project. The CIH may be an employee of the Contractor.

**DEBRIS HANDLING.**--Temporary storage on the ground of the debris will not be permitted. Debris accumulated inside the containment system shall be removed before the end of each work shift. Debris shall be

stored in approved leak proof containers and shall be handled in such a manner that no spillage will occur.

Disposal of debris shall be performed in accordance with all applicable Federal, State and Local hazardous waste laws. Laws that govern this work include:

1. Health and Safety Code, Division 20, Chapter 6.5 (California Hazardous Waste Control Act).
2. Title 22; California Code of Regulations, Chapter 30 (Minimum Standard for Management of Hazardous and Extremely Hazardous Materials).
3. Title 8, California Code of Regulations.

Except as otherwise provided below, debris shall be disposed of by the Contractor at an approved Class 1 disposal facility in accordance with the requirements of the disposal facility operator. The debris shall be hauled by a transporter currently registered with the California Department of Toxic Substances Control using correct manifesting procedures and vehicles displaying current certification of compliance. The Contractor shall make all arrangements with the operator of the disposal facility and perform any testing of the debris required by the operator.

At the option of the Contractor, the debris produced when the existing paint system is disturbed may be disposed of by the Contractor at a facility equipped to recycle the debris, subject to the following requirements:

Copper slag abrasive blended by the supplier with a calcium silicate compound shall be used for blast cleaning.

The debris produced when the existing paint system is disturbed shall be tested by the Contractor to confirm that the solubility of the heavy metals is below regulatory limits and that the debris may be transported to the recycling facility as a non-hazardous waste.

The Contractor shall make all arrangements with the operator of the recycling facility and perform any testing of the debris produced when the existing paint system is disturbed that is required by the operator.

**SAMPLING AND ANALYSIS.**—The Contractor shall take the air and soil samples as required in these special provisions. A qualified person shall collect the samples. The Contractor shall submit for approval by the Engineer, his sampling and analysis procedure and the name and address of the laboratory to be used fifteen working days prior to beginning any sampling or analysis. The laboratory used shall be certified by the California Department of Health Services.

Full compensation for sampling and analysis shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefor.

**WORK AREA MONITORING.**—The Contractor shall perform work area monitoring of the ambient air and soil in and around the work area at the bridge site to verify the effectiveness of the containment system. The work area monitoring shall consist of collecting, analyzing and reporting of air and soil test results, and recommending any required corrective action when specified exposure levels are exceeded. The work area monitoring shall be carried out under the direction of a CIH. The samples shall be collected at locations designated by the Engineer.

Air samples shall be collected and analyzed in accordance with National Institute for Occupational Safety and Health (NIOSH) methods. Lead air samples shall be collected and analyzed in accordance with NIOSH Method 7082, with a limit of detection of at least  $0.5 \mu\text{g}/\text{m}^3$ . Air samples for other metals shall be collected and analyzed in accordance with NIOSH Method 7300, with a limit of detection of at least one percent of the appropriate Permissible Exposure Limits (PELs) of California/Occupational Safety and Health Administration (Cal/OSHA). Alternative methods of sample collection and analysis, with equivalent limits of detection, may be used at the option of the Contractor.

The airborne metals exposure, outside either the containment system or work areas, shall not exceed the lower of either: (1) 10 percent of the Action Level specified for lead by Section 1532.1, "Lead," or (2) 10 percent of the appropriate PELs specified for other metals by Cal/OSHA.

The air samples shall be collected once prior to beginning of work that disturbs the existing paint system, disturbs the existing debris, or combines the existing and produced debris, and at least once per week during progress of this work. All air samples shall be analyzed

within 48 hours at a facility accredited by the Environmental Lead Laboratory Accreditation Program of the American Industrial Hygiene Association (AIHA). When corrective action is recommended by the CIH, additional samples may be required by the Engineer to be taken, at the Contractor's expense.

Four soil samples each at Bents A and B, Pier W1 and Yerba Buena Island anchorage shall be collected prior to start of work, and four soil samples each at Bents A and B, Pier W1 and Yerba Buena Island anchorage shall be collected within 36 hours following completion of cleaning operations of existing structural steel. Where the cleaning operations extend over large areas of soil or many separate areas of soil at each bridge site, the samples shall be collected at various times during the contract, as determined by the Engineer. A soil sample shall consist of 5 plugs, each 3/4 inch diameter and 1/2 inch deep, taken at each corner and center of a one foot square area. Soil samples shall be analyzed for total lead, chromium and zinc in accordance with Method 3050 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846 published by the United States Environmental Protection Agency.

There shall be no increase in the concentrations of heavy metal in the soil in the area affected by the Contractor's operations.. When soil sampling, after completion of work that disturbs the existing paint system, disturbs the existing debris, or combines the existing and produced debris, shows an increase in the concentrations of heavy metal, the area affected shall be cleaned and resampled at the Contractor's expense until soil sampling and testing shows concentrations of heavy metal less than or equal to the concentrations collected prior to start of work.

In areas where there is no exposed soil, there shall be no visible increase in the concentrations of heavy metal on the area affected when the existing paint system is disturbed, the existing debris is disturbed, or the existing and produced debris have been combined. Any visible increase in the concentrations of heavy metal, after completion of work that disturbs the existing paint system, shall be removed at the Contractor's expense.

Air and soil sample laboratory analysis results, including results of additional samples taken after corrective action as recommended by the CIH, shall be submitted to the Engineer. The results shall be submitted both verbally within 48 hours after sampling and in writing with a copy to the Contractor, within 5 days after sampling. Sample analysis reports shall be prepared by the CIH as follows:

For both air and soil sample laboratory analysis results, the date and location of sample collection, sample number, contract number, bridge number, full name of the structure as shown on the contract plans, and District-County-Route-Post mile will be required.

For air sample laboratory analysis results, the following will be required:

1. List of emission control measures in place when air samples were taken.
2. Air sample results shall be compared to the appropriate PELs.
3. Chain of custody forms.
4. Corrective action recommended by the CIH to ensure airborne metals exposure, outside either the containment system or work areas, is within specified limits.

For soil sample laboratory analysis results, the concentrations of heavy metal expressed as parts per million will be required.

**CONTAINMENT SYSTEM.**—The containment system shall consist of, at the option of the Contractor, (1) a ventilated containment structure, or (2) vacuum shrouded surface preparation equipment and drapes, tarps or other materials, or (3) equivalent containment system. The containment system shall contain all water, resulting debris, and visible dust produced when the existing paint system is disturbed, the existing debris when it is disturbed, and any mixture of the existing and produced debris.

The containment system shall provide the clearances specified under "Maintaining Traffic" of these special provisions, except that when no clearances are specified a vertical clearance of 15 feet and a horizontal clearance of 32 feet shall be provided for the passage of public traffic.

Falsework or supports for the ventilated containment structure shall not extend below the vertical clearance level nor to the ground line at any location within the roadbed.

The ventilated containment structure shall conform to the provisions for falsework in Section 51-1.06, "Falsework," of the Standard Specifications.

The minimum total design load of the ventilated containment structure shall consist of the sum of the dead and live vertical loads. Dead load shall consist of the actual weight of the ventilated containment structure. Live loads shall consist of a uniform load of not less than 45 pounds per square foot, which includes 20 pounds per square foot of sand load, applied over the area supported, and in addition, a moving 1000 pound concentrated load shall be applied to produce maximum stress in the main supporting elements. Assumed horizontal loads need not be included in the design of the ventilated containment structure.

The ventilated containment structure shall be supported with either rigid or flexible supports. The rigid or flexible containment materials on the containment structure shall retain air borne particles but may allow air flow through the containment materials. Flexible materials shall be supported and fastened to prevent escape of abrasive and blast materials due to whipping from traffic or wind and to maintain the clearances.

All mating joints between the ventilated containment structure and the bridge shall be sealed. Sealing may be by overlapping of seams when using flexible materials or by using tape, caulking, or other sealing measures.

Multiple flap overlapping door tarps shall be used at entry ways to the ventilated containment structure to prevent dust or debris from escaping.

Baffles, louvers, flapper seals or ducts shall be used at make-up air entry points to the ventilated containment structure to prevent escape of abrasives and resulting surface preparation debris.

The ventilated containment structure shall be properly maintained while work is in progress and shall not be changed from the approved working drawings without prior approval of the Engineer.

The ventilation system in the ventilated containment structure shall be of the forced input air flow type with fans or blowers.

Negative air pressure shall be employed within the ventilated containment structure and will be verified by visual methods by observing the concave nature of the containment materials while taking into account wind effects, or by using smoke or other visible means to observe air flow. The input air flow shall be properly balanced with the exhaust capacity throughout the range of operations.

The exhaust air flow of the ventilation system in the ventilated containment structure shall be forced into dust collectors (wet or dry) or bag houses.

**PROTECTIVE WORK CLOTHING AND HYGIENE FACILITIES.**—Wherever there is exposure or possible exposure to heavy metals or silica dust at the bridge site, the Contractor shall, for not more than 5 State personnel: (1) furnish, clean and replace protective work clothing and (2) provide access to hygiene facilities. The furnishing, cleaning and replacement of protective work clothing, and hygiene facilities shall conform to the provisions of subsections (g), "Protective work clothing and equipment," and (i), "Hygiene facilities and practices," of Section 1532.1, "Lead," of the Construction Safety Orders.

The protective work clothing and access to hygiene facilities shall be provided during exposure or possible exposure to heavy metals or silica dust at the bridge site and application of the undercoats of paint.

Protective work clothing and hygiene facilities shall be inspected and approved by the Engineer before being used by State personnel.

The protective work clothing shall remain the property of the Contractor at the completion of the contract.

**PAYMENT.**—Full compensation for the containment system, protective work clothing and access to hygiene facilities for State personnel; handling of debris produced when the existing paint system is disturbed, the existing debris is disturbed by the Contractor's operations, or the existing and produced debris are combined; and the removal of existing debris prior to starting work that may disturb the existing debris; including testing, hauling, treatment, disposal fees and local taxes, shall be considered as included in the contract price paid for the item of work requiring the disposal of the debris and no additional compensation will be allowed therefor.

Work area monitoring will be paid for on the basis of a lump sum price.

The contract lump sum price paid for work area monitoring shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in collecting and analyzing of samples of ambient air and soil for heavy metals, complete in place, including reporting the test results, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer."



To Proposal and Contract book holders:

- ATTACHED ARE THE DEPARTMENT'S RESPONSES TO THE CONTRACTORS' INQUIRIES. THE RESPONSES TO CONTRACTORS' INQUIRIES, UNLESS INCORPORATED INTO A FORMAL ADDENDA TO THE CONTRACT, ARE NOT A PART OF THE CONTRACT AND ARE PROVIDED FOR THE CONTRACTORS' CONVENIENCE ONLY. IN SOME INSTANCES, THE QUESTION AND ANSWER MAY REPRESENT A SUMMARY OF THE MATTERS DISCUSSED RATHER THAN A WORD-FOR-WORD RECITATION. THE AVAILABILITY OR USE OF INFORMATION PROVIDED IN THE RESPONSES TO CONTRACTORS' INQUIRIES IS NOT TO BE CONSTRUED IN ANY WAY AS A WAIVER OF THE PROVISIONS OF SECTION 2-1.03 OF THE STANDARD SPECIFICATIONS OR ANY OTHER PROVISIONS OF THE CONTRACT, THE PLANS, STANDARD SPECIFICATIONS OR SPECIAL PROVISIONS, NOR TO EXCUSE THE CONTRACTOR FROM FULL COMPLIANCE WITH THOSE CONTRACT REQUIREMENTS. BIDDERS ARE CAUTIONED THAT SUBSEQUENT RESPONSES OR CONTRACT ADDENDA MAY AFFECT OR VARY A RESPONSE PREVIOUSLY GIVEN.
- INDICATE RECEIPT OF THIS ADDENDUM BY FILLING IN THE NUMBER OF THIS ADDENDUM IN THE SPACE PROVIDED ON THE SIGNATURE PAGE OF THE PROPOSAL.
- Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.
- Inform subcontractors and suppliers as necessary.

This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it.

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

NICK YAMBAO, Chief  
Office of Plans,

Specifications &

Estimates Branch  
Division of Office Engineer

Attachments

**RESPONSES TO BIDDERS' INQUIRIES POSTED ON WEBPAGE AS OF AUGUST 12, 1999.**

**REVISED RESPONSES:** Please note that the responses to inquiries no. 6, 12, and 26 have been revised.

**PLEASE NOTE:** Inquiries submitted within 72 hours of bid opening date might not be addressed.

**1) Would contract plan electronic files be available to contractors?**

Contract plan electronic files will not be available to contractors.

**2) What is the coastwise trade determination for qualified barges?**

A non-coastwise qualified barge may be used as a moored stationary work platform within the territorial waters of the United States without violating the coastwise laws, provided that it transport neither passengers nor merchandise while under tow between coastwise points." Contractors have to get all the appropriate permits from the US Coast Guard.

**3) Does the worker's compensation insurance for this project fall under the jurisdiction of the United States Longshore and Harbor Worker Act/ or the Jones Act?**

The Jones Act (46 U.S.C & 13 et seq.) applies to seamen and shipping and does not relate to construction workers on the bridge. The Longshore and Harbor Workers' Compensation Act (33 U.S.C. & 901 et seq.) applies to employees engaged in maritime employment. A federal court decision of the Fourth Circuit Court of Appeals has held that a construction worker employment in building a bridge over navigable water, designed to benefit both traffic and navigation, is engaged in maritime employment under the Longshore and Harbor Workers' Compensation Act. (LeMelle v. B.F. Diamond Const. Co.)(1982) 674 Fed2.d 296). Under California law (Lab. Code & 3700), every employer is responsible for being insured against liability to pay workers' compensation. That responsibility is incorporated into the Department of Transportation's (Department) construction contracts under the provisions of the Standard Specifications Section 7-1.01(A)(6) that requires the construction contractor to certify compliance with Labor Code Section 3700.

**4) Please let me know that part of the work on either or both spans will require contractors to have access to the underside of these spans. The description advertised for the West Span comments more on towers and superstructure. Is this intended to mean above the deck only, or is work expected to be completed underneath the deck and between the towers as well?**

Please look at the plans and special provisions to determine the work that are involved with this project. Plans and special provisions may be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building, 1120 N Street, Sacramento, CA 95814, or may be seen by appointment at the office of the Toll Bridge Program Duty Senior at 111 Grand Avenue, Oakland, CA 94612; telephone number (510) 286-5549; email Duty\_Senior\_Tollbridge\_District04@dot.ca.gov.

**5) Please let me know the company list which procure bid documents for this project.**

For a list of contractors who have requested bid or non-bid packages that are "out-to-bid," [CLICK HERE](#). Please note that the information is updated daily.

6) May we purchase the original design and shop drawings for the West Bay superstructure only? Please advise us of the cost and address for requesting the same.

The as-built contract drawings and shop drawings are available in five (5) CDs. The CDs are available at the following location: Kinko's, 1221 Broadway, Suite 49, Oakland, California 94612. Please call Kinko's at (510) 465-5209 and ask for Computer Services to reserve your CDs at least 24 hours in advance. Price: \$34.95 per CD. **REVISED RESPONSE:** The CDs are no longer available at Kinko's. The 5 CDs are mailed out to all planholders. If you purchased the CDs from Kinko's and would like to get reimbursed, please send a written request along with the receipt for the purchase to the Tollbridge Duty Senior.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

7) Will Caltrans provide any lane closures or boat trips for contractors to see the job prior to the bid date of August 10, 1999? If so, when will Caltrans provide these opportunities to see the job?

Tours for this project will be held periodically, approximately every two weeks over the next months. Details of the tours will be posted on this website prior to each tour. Reservations are required, and suggestions or requests for areas to be visited will be considered. Please email Duty\_Senior\_Tollbridge\_District04@dot.ca.gov to make reservations or requests. The first boat tour is scheduled for May 28, 1999.

8) Will Caltrans arrange multiple visits and will the visits incorporate both the water and roadway portions of the job? When will these site tours be held?

Please see response to Inquiry No.7.

9) What arrangements have been made to allow the contractor to visit the project site? Of particular interest would be:

- A. Upper roadway - backspans, mainspans and at towers
- B. Lower roadway - backspans, mainspans and at towers
- C. Towers - pier footing, main cable saddles

Please see response to Inquiry No.7. Thank you for your suggestions. We will consider your suggestions in our planning of the tours.

10) What software do you use to view the as-built drawings in the CDs?

For PCs, we use Imaging or Microsoft PhotoEditor to view the drawings. For Macintosh computers, we understand that Kinko's have successfully viewed the drawings with Adobe PhotoShop v5.0.

11) Special Provisions, section 55.2.01 specifies all structural steel to be of grade 36. Furthermore, sec 55-2.02 specifies that all steel unless otherwise shown on plans is to be A709/A709M, grade 36. Contract plans sheet 102 of 1049 (General Notes) specifies that "all shapes and plates with the exception of fill plate" are ASTM A709 grade 50!

Please clarify if the steel is grade 36 or grade 50?

The general note is correct. For Structural Steel plates and shapes, all shapes and plates are ASTM A709, Grade 50 and the fill plates shall conform to ASTM A709, Grade 36 unless otherwise noted.

Sections 55-2.01 and 55-2.02 in the special provisions are amendments to the Standard Specifications. Please see Section 1 (page 7) regarding amendments to the Standard Specifications.

12) We have reviewed the plans and specifications on the above captioned project and find we need clarification on the following items:

- 1. Where existing rivets are to be removed and replaced with the one inch diameter high strength bolts, are said existing rivets also one inch in diameter?
- 2. Where existing rivets are to be removed and replaced with the (3/4" diameter) high strength bolts, are said existing rivets also (3/4") in diameter?
- 3. Where existing heads of rivets are to be removed and ground flush, are we to assume that these existing rivets are one inch in diameter?

Please refer to the as-built contract drawings and shop drawing for existing rivet sizes not shown on the plans.

The as-built contract drawings and shop drawings are available in five (5) CDs. The CDs are available at the following location: Kinko's, 1221 Broadway, Suite 49, Oakland, California 94612. Please call Kinko's at (510) 465-5209 and ask for Computer Services to reserve your CDs at least 24 hours in advance. Price: \$34.95

per CD. REVISED RESPONSE: The CDs are no longer available at Kinko's. The 5 CDs are mailed out to all planholders. If you purchased the CDs from Kinko's and would like to get reimbursed, please send a written request along with the receipt for the purchase to the Tollbridge Duty Senior.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

13) Please reference Special Provisions section 10-1.34 subsection 55-3.14 titled "Bolted Connections." First paragraph allows the Contractor to use either HS bolts, nuts, and washers or tension control bolts, butts, and washers. DTI's will be allowed on HS bolt assemblies. Paragraph twelve of this same subsection requires "Tension control bolt, nut and hardened washer, whenever practicable." Who defines the locations which are practicable? This same paragraph also contradicts a previous statement in paragraph one stating, "Direct tension indicators shall not be used at any location." Please clarify.

Direct tension indicators shall not be used at any location. Section 55-3.14 in the special provisions is amendment to the Standard Specifications. Please see Section 1 (page 7) regarding amendments to the Standard Specifications. Where tension control bolts can be installed, tension control bolts shall be used. High strength bolt assemblies shall be used at all other locations.

14) When drawing call-outs indicate "remove rivet and replace with \*\*\*" high strength bolt" are we to assume that we are replacing the rivet with the same diameter bolt unless otherwise noted?

Please refer to the as-built contract drawing for existing rivet sizes not shown on plans.

15) Is there a difference between item 19, Jack Bridge (Location A) and item 20, Jack Bridge (Location B)? There is no explanation in the Special Provision section 10.1.22A.

There appears to be missing information in the specials. Unless you see an addendum, please bid in accordance with the current plans and specifications.

16) Please reference Special Provision 10-1.35, "REMOVE AND ERECT STRUCTURAL STEEL," section titled "PAYMENTS." Does the "temporary bracing systems" referred to in this clause apply to the "as designed" temporary bracing shown throughout the contract drawings (e.g. sht. 313/940). Is this material included in the quantity (17,530,000 lbs) for items 38 and 39 or is it incidental to the "ERECT STRUCTURAL STEEL (BRIDGE)" item?

The temporary bracing in this clause refers to the temporary bracing shown on the plans and are included in the "Erect Structural Steel (Bridge)" item.

17) Please furnish material specification for the "as designed" temporary bracing shown in the contract plans as it pertains to ASTM designation and grade, shop paint, bolts and bolting, inspection and random testing, inclusion or exclusion from the \$0.02/lb inspection deduct. Is the Contractor allowed to furnish an alternate "temporary stay" of his own design?

It appears that information on the temporary bracing in question is missing. Unless you see an addendum, please bid in accordance with the current plans and specifications. Please see Section 5-1.14, "Cost Reduction Incentive," regarding any proposals to modify the plans or specifications.

18) Please reference contract drawing 274 of 940. The "star" in the legend indicates "new 1-3/4" high strength bolts." We believe this call-out should be "new\*" high strength bolts." Contract drawing 280 of 940 has an identical detail. The "star" indicates "\*" high strength bolts. Please verify.

There appears to be conflict on the plans. Unless you see an addendum, please bid in accordance with the current plans and specifications.

19) (A) Please reference contract drawing 216, 217 / 940. An optional field weld is shown. The field weld is not an option. There is not sufficient area for a welder's hand and head to access the weld on the right hand side of the tube as shown in section M-M and section H-H. The weld symbol shown requires a "fillet on the outside of the tube and a "weld on the inside of the tube. Are the weld

symbols drawn incorrectly in section H-H and M-M? (B) The back to back angles of the diaphragm in section F-F and G-G bolt through a cover plate that covers the very manholes that are used to access the interior of the tower legs for this work (SE 218, 219 / 940). How do you access the bolts on the inside of the tower once the cover plate is installed?

(A) It appears that the welding symbols in Section H-H and M-M conflict. Unless you see an addendum, please bid in accordance with the current plans and specifications.

(B) There appears to be an accessibility issue with the section in question. Unless you see an addendum, please bid in accordance with the current plans and specifications.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

20) Please reference contract drawings 218, 219 /940. Section I-I and section J-J. What means are provided to access the topside of the top diaphragm plate to field weld the tube as shown on sheet 217, 218, and 220? The tube cannot be welded to the end plate in the shop. The completed unit would then be too long to tip into position. The top angle and the respective vertical leg bolts are impossible to access due to the installation of the "\*" diaphragm plate. Please advise.

There appears to be an accessibility issue with the section in question. Unless you see an addendum, please bid in accordance with the current plans and specifications.

21) Please see sheet 28, "Truss Layout No. 10" identifying the limits of lower chord retrofit. The drawing seems to show lower chords scheduled for retrofit as (L121-L120), (L-120-L119), and (L119-L118). However, the bold lines depicting the retrofitted chords seem to show (L122-L121), (L121-L120), (L-120-L119), and (L119-L118). Please clarify if east truss section lower chord (L122-L121) gets retrofitted.

Yes, this section gets retrofitted. Sheet 409 shows the details for the lower chord (L122-L121) retrofit.

22) See sheet 356 "U7-L8 North and South Truss" identifying diagonal retrofit. The detail showing the side view makes no reference to a rivet or bolt size at the bottom end angle @ L8. Is there rivet removal at this angle?

There appears to be an detailing error on this view. Unless you see an addendum, please bid in accordance with the current plans and specifications.

23) See sheet 356 "U7-L8 North and South Truss" identifying diagonal retrofit. The bottom view detail call for a type "A" splice plate with 20 bolts shown. Drawing sheet 502 "Typical Diagonal Retrofit Details No. 2" show the splice type "A" with 24 holes. Is this the right splice plate for these locations? Other drawings also show the same - 357, 358, 361, etc.

Splice plate Type "A," with 24 holes, is the correct plate for this location. There appears to be an detailing error on the bottom view on sheet 356. Unless you see an addendum, please bid in accordance with the current plans and specifications.

24) See sheet 135, "Pier W-4 Temporary Bracing Layout" identifying truss bracing. The detail showing the temporary bracing layout has created confusion by calling out the words "to San Francisco (Upper Level)." Please lend assistance in defining the extent of the bracing locations.

(A) First, the drawings appear to show bracing at locations W1 and W4, but is there also bracing at location W-7?

(B) Second, at locations where there is temporary bracing, do both the upper and lower decks receive bracing?

(A) There is no bracing at Pier W-7.

(B) Only the lower deck receives bracing.

25) Please reference contract drawings 189-254/940. Some dampers show a field splice when penetrating a floor beam, some do not. Is it your intent that all dampers which penetrate floor beams have field splices? We do not see any other way to install these particular dampers without the splice.

No. Field splices were provided for the damper extensions. There appears to be sufficient room to install the dampers.



26) Please reference contract drawing 518/940. May the temporary stays used in the retrofit for stiffening truss chords, diagonals and end/rocker posts remain in place? If this is the case, are galvanized A325 bolts required? If the temporary stays are to be removed, what grade and finish is required on the bolts used to fill the open holes that remain?

It appear that the specials do not address whether the temporary stays in question are to remain in place. Unless you see an addendum, please bid in accordance with the current plans and specifications. **REVISED RESPONSE:** Construction sequences on sheets 446, 603 and 619 of 1049, note that the temporary stays shall be removed.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

27) Please reference contract drawing 506 and 514/940. If the perforated cover plate is installed as shown in stage 2, sht. 514/940, then it is impossible to get the 5/8" x 24" interior cover plate past the nut and "stick-through" from the bolts fastening the perforated cover plate. We suggest placing the 5/8" x 24" cover plate on the exterior of the post. Additionally it appears that bolts entering from adjacent faces at the corners of the posts will interfere with each other. Please advise.

There appears to be a conflict between the details shown on the plans. Unless you see an addendum, please bid in accordance with the current plans and specifications.

28) We have decided not to bid the SFOBB West Span. Do you want me to send the CDs back to you?

Thank you for your consideration. No, you do not need to send the CDs back to us.

29) Please reference Special Provisions section 10-1.34 subsection 55-3.14 titled, "Bolted Connections," sixth paragraph which reads:

EACH LENGTH AND DIAMETER OF FASTENER ASSEMBLIES USED IN ANY ONE JOINT OF A HIGH-STRENGTH BOLTED CONNECTION SHALL BE FROM THE SAME ROTATIONAL CAPACITY LOT. THE CONTRACTOR SHALL KEEP A RECORD OF WHICH ROTATIONAL CAPACITY LOT ARE USED IN EACH JOINT.

Traceability of rotational test lots to the field joint is unheard of, especially on a project with a bolt count approaching 1 million pieces. The cost for shipping, shakeout and separation of length, diameter and rotational test lots and on site separated storage of same will cost millions of dollars, not to mention the cost of field accountants to record individual placement according to size, lot and location. If this requirement is allowed to remain the bolt manufacturers must guarantee a supply of fasteners adequate to complete a joint without running out of a rotational capacity lot, which is much more than the 2% "over" allowance normally used. This cost is unwarranted.

Thank you for your input. Your concerns have been noted.

30) Please advise if the safety harness and lanyards are required for the site tour if we just ride the bus out and don't go up the tower.

Yes, please bring your harnesses and lanyards to the site visits. Besides climbing up to the towers, the site visits consist of other activities that require harnesses and lanyards.

31) We have purchased and printed all 2078 drawings available on CD of as built and shop drawings. We do not have any drawings of the substructure retrofit contract drawings for this project currently in progress. Please forward a copy of the design drawings for this project at your earliest convenience. I am not sure of the contract number but I saw the pier work on going during our boat tour of 6/3/99. From your contract question/answer website I pulled off the following contract number and description: Contract 04-043544 West Bay Foundations W2-W6.

The plans and special provisions for Contract No. 04-043544 are available for inspection by appointment at the office of the Toll Bridge Duty Senior at 111 Grand Avenue, Oakland, CA 94612; telephone number (510) 286-5549; email Duty\_Senior\_Tollbridge\_District04@dot.ca.gov.

32) Special Provisions section 2-.104 on page 9 indicates "telephone log and list of rejected DVBES" is to be submitted with the bid. Our telephone conversation

will be in Concord, and we will turn in the bid in Sacramento. Some DVBES will not be rejected until the last minute due to scope/price. How should we approach this?

As specified in Section 2-1.04 of the Special Provisions, the "Telephone Log" will include the names, dates and times of all certified DVBES solicited to bid on the project. The Department recognizes that some subquotes are received very late on bid opening day. The list of DVBES whose bids were not accepted should be as complete as possible.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

33) Special Provisions Notice to Contractors on page 2 indicates, "The Contractor must be properly licensed at the time the bid is submitted, except that on joint venture bid a joint venture license may be obtained by a combination of licenses after bid opening but before award..." (Award is within 10 days of bid opening). The Proposal and Contract Important Special Notice indicates, "The joint venture must also possess a separate contractor's license which must be valid at the time of award of the contract." These statements are in conformance with each other. However, the next sentence is subject to interpretation and requires clarification. It states, "...the joint venture license needs to be valid by the day of bid opening." Does this infer that the joint venture license application cannot be processed "as soon as possible after bid opening" or within the 10 days anticipated in Special Provision section 3-1.01B on page 11?

Although the law requires a joint venture license be obtained prior to award, the Department anticipates a reduced award time (10 days) and is requesting a joint venture partnership to obtain the license by bid opening (normal processing of a joint venture license by the State License Board is 2-3 weeks).

34) Special Provisions section 4 on page 12 indicates days of inclement weather will not be counted as working days. Note 12 on sheet no. 109/1049 indicates tower members may be disassembled only when the peak wind speed is less than 35 mph. If this item is the controlling operation, how does the 60 percent of the total daily time get interpreted?

In accordance with Section 8-1.06 of the Standard Specifications, disassembly work on the towers would become a non working day if the Contractor was prevented by inclement weather from proceeding with at least 75% of the normal labor and equipment engaged on **such operation** for at least 60% of the total daily time **being currently spent on the controlling operation**.

35) Regarding Special Provisions section 5-1.34, "Drawings," page 38, this area talks about submitting the final as-built drawings in a Microstation Ver 5.0 or later design format on compact disk. I am having a problem locating the Microstation software, or any information regarding it.

What I need to know is if these files have to be drawn in Microstation or do they only have to be read by Microstation, and what other file formats are acceptable. We have the ability to scan large formats, tiff, gif, calcomp, jpeg, bmp, cals and other standard graphic file formats. We received a set of CD rom disks from Caltrans on the Bay Bridge project where all the files were in a tiff file format. Can we assume that this is an acceptable format for file storage and transmittal?

We would appreciate any information you can give us on the Microstation if you have any.

The Special Provisions specifically states that the approved final drawings be submitted in a Microstation Ver 5.0 or later format and submitted in compact disks. You can use any design software, but the final drawings you submit need to be in the Microstation Ver 5.0 or later format. Some design software allow for the conversion to Microstation. However, you should test the compact disks to ensure that the files are readable, exact, and that all layers and other file attributes are accessible to Microstation Ver 5.0 or later.

For your information, the software Microstation is manufactured by Bentley Systems Inc., phone number 1-800-BENTLEY (1-800-236-8539), fax number 1-610-458-1059. Also, you can visit their webpage at [www.bentley.com](http://www.bentley.com).

36) Please reference Special Provisions section 10-1.34 subsection 55-3.14 titled, "Bolted Connections," sixth paragraph which reads:

EACH LENGTH AND DIAMETER OF FASTENER ASSEMBLIES USED IN ANY ONE JOINT OF A HIGH-STRENGTH BOLTED CONNECTION SHALL BE FROM THE SAME ROTATIONAL CAPACITY LOT. THE

CONTRACTOR SHALL KEEP A RECORD OF WHICH ROTATIONAL CAPACITY LOT ARE USED IN EACH JOINT.

Which rotational capacity "lot" are you referring to in this paragraph? Lots prior to shipment as defined in 55-3.14C or lots after arrival to job site as defined in 55-3.14D?

Lots are defined in the Section 55-3.14C, "Rotational Capacity Testing Prior to Shipment to Job Site" and the same lots are used for Section 55-3.14D, "Installation Tension Testing and Rotational Capacity Testing After Arrival to Job Site."

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

37) Please reference: "A maximum of 30 complete closures for the westbound direction of the San Francisco-Oakland Bay Bridge will be allowed only for erecting structural steel above the roadway."

Due to the numerous pieces at each tower and restrictions of how the gusset and diagonal must be constructed in stages, we believe that the maximum of 30 complete closures will be insufficient. Will an allowance be made for more westbound complete closures?


No additional complete closures for the west-bound direction will be allowed. The anticipated work for erecting steel above the roadway as specified in Section 10-1.12, "Maintaining Traffic," of the contract special provisions, shall be planned to be completed within these constraints.

38) The contaminated material generated by cleaning and spot blasting must be disposed of as hazardous material . We request that the State of California be designated as the generator of the material and signs the shipping manifests as such.

Yes, the State, as the generator of the hazardous waste, signs the manifests.

39) I have come across some symbols that are not in the legend or specs.

AB, CC, r, RC, r, RS

Please refer to the Standard Plans dated July, 1992, section, "Signals Lighting and Electrical Systems." Please note that  denotes "Proposed Conduit Riser in Structure."

40) Reference S.P. 5-1.25, "Relations with California Regional Water Quality Control Board," fourth paragraph. The Engineer alludes to the "Floodway", and RPI is unable to locate an area identified on the plans as such, nor is a definition of the term provided in either the S.P.'s or Standard Specifications. Please define or identify the location of the "Floodway".

Please refer to upcoming addendum no. 3.

41) Can you please confirm the internet web address for CONTRACTOR INQUIRIES. For some reason, we are having problems linking to the internet address stated in the bid documents, <http://tresc.dot.ca.gov/sfobb/CONTRACTORINQUIRIES.html>

Is this the correct address?

Yes, this is the correct address. Our server might have been down intermittently when you were trying to link to the website.

42) Tender form appendix B-1 stipulates Performance bond of 100% is required. Tender form appendix B-1 stipulates Payment bond of 100% is required. Special Provisions clause 5-1.005 stipulates that payment bond shall be "not less than the following: 3. Twenty-five percent of the total amount payable by the terms of the contract when the total amount payable exceeds ten million dollars (\$10,000,000)."

What payment bond is required for this contract?

Please refer to addendum no. 1.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

43) Reference is made to Special Provisions 5-1.35 Permits and Licenses. Consider this correspondence as RPI's request that a copy of each of the below listed be forwarded to the sender's attention.

San Francisco Bay Conservation Development Commission  
U.S. Coast Guard  
Regional Water Quality Control Board

Additionally, reference is made to Special Provisions 5-1.23 Relations with U.S. Coast Guard. Along with the aforementioned, forward a copy of "Information Handout", including "Marine Safety Office San Francisco Bay Seismic Retrofit Checklist".

Please contact the Department of Transportation, Plans and Bid Documents, Room 0200 Transportation Building, 1120 N Street, Sacramento, California 95814, telephone number (916) 654-4490, to obtain copies of the permits. Please note that the copies of the permits are **available for inspection** at the Office of the Toll Bridge Duty Senior. Copies of the permits can also be made at the Office of the Toll Bridge Duty Senior for a charge (\$0.10 per sheet).

44) Special Provisions, page 122, para 3, Section 10-1.34, "Structural Steel." "All manufacturing process for steel fastener and high strength steel fastener assemblies furnished for incorporation into the work on this project shall occur in the United States."

As there is no "Buy America" clause in this contract and the funds for this project come from increased toll fees, and whereas all subsequent SF Bay bridge projects have used fasteners and steel of foreign origin, why then are we required to buy only from U.S.A. origin?

This paragraph only applies to the steel fastener and high strength steel fastener assemblies used for this project. This paragraph does not apply to other structural steel elements.

Thank you for your input regarding the "Buy America" clause for fasteners. Your comments have been noted.

45) Please reference contract drawing 521, 522 and 523 of 940. We assume that the horizontal connector plate is shop welded to the the 1" web connector plate. There are no weld call outs shown for the Type VI, Type VIII or Type IX connections. Please furnish weld details and check impact tool clearance to the rows of bolts nearest the horizontal connector plate.

Please reference sheet 623, 624 and 625 of 1049. The weld call out is shown in the Plan view for connections Type VI, sheet 623, and Type VIII, sheet 624. For connection Type IX, see the note on sheet 625. This note states that for details not shown see "Connections Details No. 2, " which shows the weld call out and other details for connection Type IX. At various locations throughout the project, the available clearance may not be sufficient for impact tools. The Contractor should carefully review the plans and avail themselves of the site visits to determine available clearance for tools and equipment.

46) See "West Bay Tower" sheets 51, 58, & 60 showing the retrofit of "B" & "C" lower diagonals at Tower 2. First, the elevation detail on sheet 51 calls for an L 6x4x1/2 stiffener angle. Next, sheet 58 informs us that the stiffener angle dimensions can be found at Detail "J" on sheet 60. Finally, sheet 60 shows the stiffener angle in Detail "J" as L 6x4x3/8. The per foot weight of these two angles varies by approx. 4 lbs. Please provide information to clarify whether the angle is 1/2 or 3/8.

The stiffeners are L 6x4x3/8 as shown in "Detail J" on sheet 60. Please refer to Section 5-1.04, "Coordination and Interpretation of Plans, Standard Specifications,



and Special Provisions," of the Standard Specifications regarding discrepancies between detail drawings and general drawings.

47) See special provisions Section 10-1.39 Clean and Paint Structural Steel, Measurement and Payment (page 144)). Bid Item No. 41 - Spot Blast and Clean is shown as a Fixed Final Pay Item. The approximate quantity is listed as 213,000 square feet. The phrase in the above specification "as directed by the Engineer" is ambiguous. It reads like the Caltrans Engineer could require the contractor to spot blast clean and paint undercoat the entire bridge structure, far more than the 213,000 square feet. Approximately how many square feet, outside of what is shown on the plans or specifications, will the Caltrans Engineer direct the contractor to spot blast clean and paint undercoat?

See the second paragraph of Section 10-1.39 of the special provisions, on page 140. The special provisions state that "additional cleaning and painting outside of the limits designated herein shall be done as directed by the Engineer and will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications."

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

48) See second paragraph at top of page 93 of the special provisions (Section 10-1.22 Existing Highway Facilities). Does the 213,000 sqft quantity show in Bid Item 41 - Spot Blast Clean and Paint Undercoat, include mitigating any of the above mentioned paint on existing rivets prior to rivet removal?

Containment of debris produced when the existing paint system is disturbed by any work is discussed in Section 10-1.22 of the special provisions. Please see the subsection entitled, "Payment, " on page 95 and Section 10-1.22D, "Remove Rivet," for payment of containing the above mentioned debris.

49) Reference Special Provision Page 37 - Section 5-1.30, "Use of Existing Traveler Rails and Scaffolds." This specification section indicates that information on the existing travelers and rails is available to the contractor. We have attempted to obtain the information from the contacts listed in this special provision. However, it seems as if the contacts are unaware that they are supposed to provide the information. Hence, after several attempts, we have been unable to obtain the information described by the provision. Will Caltrans make the traveler/rail system information available to the prospective bidders?

The contact for the traveler/rail system information is changed, and the change will be addressed in the upcoming addendum no. 3. The traveler/rail system information is available for inspection at the office of the Toll Bridge Duty Senior at 111 Grand Avenue, Oakland, CA 94612, telephone number (510) 286-5549.

50) Reference Special Provisions page 37 - Section 5-1.27, "Area for Contractor's Use." This section of the Special Provisions indicates that there could be "State Property" that a contractor could use for storage. For planning/bidding purposes, can you be more specific about what property is in fact available to the contractor (location, size, duration, etc.)?

At this time there is no State property available for the contractor's use. Prospective bidders should not rely on the availability of State property for temporary storage of equipment and materials, or for any other use by the successful bidder. At such time that State property becomes available, arrangements for use may be made with the Engineer.

51) Reference S.P. 10-1.01 "Order of Work", second and third paragraphs. Cited paragraphs contain differing requirements, with respect to proximity of Peregrine Falcon nests. Should the bidders assume "...within a 300-foot radius of Pier W-4" or "...within a 300-foot radius in all directions from the nest site..."? If the former, from what point of Pier W-4 is the 300-feet measured?

Also, will the Contractor receive additional compensation and/or an extension of time, should nesting birds exclude more than one (1) pier and possibly adjacent portions of the bridge within a 300-foot radius of the pier(s) or nest site(s) (see previous question)?

The version of Section 10-1.01, "Order of Work," you cited in this inquiry has been revised. Please refer to upcoming addendum no. 4 for the revised S.P. 10-1.01, "Order of Work."

52) We would like to receive historical weather data for the West Bay Bridge. History regarding wind speed, temperature, and humidity for the last 10 years. Also to include top of YBI.

Weather data are available at various agencies, such as the Western Regional Climate Center (telephone number 775-674-7010, contact: Dorothy Miller) and the National Weather Service (telephone number 831-656-1725). Please contact the agencies or use the links (in red) provided below.

53) Please reference contract drawing 525/940. The detail called out as plan-stiffeners shows the three built-up channels as chord stiffeners labeled Type IX connections. Type IX connections are floorbeam connections not chord connections (see sheet 523/940). Please clarify.

See revised sheet 627 of 1049 of Addendum #3.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

54) See Truss-Floor Beam Retrofit Detail 6, No. 5, Sheet 664, the listed locations to receive a "Type D6-Cx Bracket" shows L0, L38, L118, L 116 & L156. West Span Stiffening Truss, Truss Layout No. 1 thru No. 16 (Sheets 19-34) indicates:

L0 receives Type 12 Retrofit  
L38 receives Type 11 Retrofit  
L118 receives Type 11 Retrofit  
L116 receives Type 11 Retrofit  
L156 receives Type 12 Retrofit

Please clarify the lower floor beam retrofit at these locations.

See revised sheet 766 of 1049 of Addendum #3.

55) Throughout the drawings, temporary material is shown. The specifications do not address how the temporary material is paid for. Is it incidental to the work or is the weight of the temporary material included item 38(F); Item code 550203-Furnish Structural Steel (bridge) 17,530,00 lbs. The temporary vertical and horizontal stay material required for the diagonal stiffening truss retrofit per sheet 501 of 940 instructs the contractor that "bolts connecting the Temporary Stays to the diagonals to remain in place after removing the temporary stay material." This note does not appear on sheet 312 or 344 of 940, which instructs the contractor to retrofit the lower and upper truss chords. There is no note telling that the bolts connecting the temporary stays to remain. The questions that need address are as follows:

- (a) How is the temporary material paid for?
- (b) Can the temporary stays remain in-place after the retrofit is completed?
- (c) Do the chord retrofit open holes fill with bolts?
- (d) Can soft bolts be used in-lieu of high strength bolts for connecting temporary material?
- (e) Can the bolts used to temporarily connect the stays be reused in the open holes?

The above questions concern all temporary material.

- (a) See addendum #3 regarding the payment for the temporary material.
- (b) As shown on the plans, the temporary stays are to be removed.
- (c) See revised sheets 414 and 446 of 1049 of Addendum #3.
- (d) No, soft bolts shall not be used.
- (e) Yes, the bolts can be reused. Please see the General Notes on sheet 102 of 1049 regarding the exclusion of threads from the shear plane and the use of plate washers.

56) See Truss-Floor Beam Retrofit Detail 8, No. 6, Sheet 675, the listed locations to receive a "Type D8-Jx Bracket" includes locations L3, L121, & L141. West Span Stiffening Truss, Truss Layout No. 1 thru No. 16 (Sheets 19-34) indicates these locations are at expansion joints. Shouldn't these locations get a "Type D8-H Bracket"?

See revised sheet 777 of 1049 of Addendum #3.

57) See Truss-Floor Beam Retrofit Detail 8, No. 6, Sheet 673, the listed locations to receive a "Type D8-Cx Bracket" does not include location L113. West Span Stiffening Truss, Truss Layout No. 1 thru No. 16 (Sheets 19-34) indicates a Type 8 retrofit at L113. Please clarify the lower floor beam retrofit at these locations.

See revised sheet 775 of 1049 of Addendum #3.

58) See Truss-Floor Beam Retrofit Detail 5, No. 8, Sheet 659, the "South Truss Location List" shows a "Type D5-Jx Bracket" at location L2, L7, &L31. West Span Stiffening Truss, Truss Layout No. 1 thru No. 16 (Sheets 19-34) indicates these locations are at an expansion joint. Shouldn't a "Type D5-H Bracket" be installed at these locations.

See revised sheet 761 of 1049 of Addendum #3.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

59) See Truss-Floor Beam Retrofit Detail 4, No. 5, Sheet 648. Note that there is no call for seal welding on this drawing. Seal welding is a common call out on many of the Truss-Floor Beam Details. Please review and confirm no seal welds are required for items on this drawing.

See revised sheet 750 of 1049 of Addendum #3.

60) See Truss-Floor Beam Retrofit Detail 4, No. 5, Sheet 648 and Truss-Floor Beam Retrofit Detail 4, No. 8, Sheet 651. These drawings indicate the same locations on the north truss are to receive both "Bracket D4-Cx" and "Bracket D4-Jx."

See revised sheet 753 of 1049 of Addendum #3.

61) See Truss-Floor Beam Retrofit Detail 6, No. 5, Sheet 664 and Truss-Floor Beam Retrofit Detail 6, No. 8, Sheet 667. These drawings indicate the same locations on the north truss are to receive both "Bracket D6-Cx" and "Bracket D6-Jx." Please identify which bracket goes at these locations.

See revised sheet 753 of 1049 of Addendum #3.

62) See Truss -Floor Beam Retrofit Detail 3, No. 4, Sheet 642, "D3-Cx Location List" shows "Detail 3" retrofit at U0, U40, U116, U118 and U156.

See Truss Layout No. 1 thru No. 16, Sheets 19 thru 34 show:

Floor Beam, Location U0 to receive "Detail 10" retrofit  
Floor Beam, Location U40 to receive "Detail 9" retrofit  
Floor Beam, Location U116 to receive "Detail 9" retrofit  
Floor Beam, Location U118 to receive "Detail 9" retrofit  
Floor Beam, Location U156 to receive "Detail 10" retrofit

Please provide information clarifying the floor beam retrofit at these locations.

See revised sheet 744 of 1049 of Addendum #3.

63) See Truss Layout No. 1, Sheet 19, it indicates location U2 receives a "Detail 2" floor beam retrofit.

Truss-Floor Beam Retrofit Detail 2, No. 4, Sheet 637, "D2-Cx Location List" shows no "Detail 2" retrofit at U2.

Please provide information clarifying the floor beam retrofit at U2.

See revised sheet 739 of 1049 of Addendum #3.

64) See Truss-Floor Beam Retrofit Detail 5, No. 7, Sheet 658, the listed locations to receive a "Type D5-H Bracket" does not include L44.

West Span Stiffening Truss, Truss Layout No. 1 thru No. 16 (Sheets 19-34) indicates L44 is at an expansion joint.

Shouldn't a "Type D5-H Bracket" be install at this location?

See revised sheet 760 of 1049 of Addendum #3.

65) Reference Specification Section 10-1.22, paragraph 5, page 92. Further, the structure drawings contain the note: "The contractor shall verify all controlling field dimensions before ordering or fabricating any material." A significant portion of the work on this project involves removing rivets and lacing on chord members and replacing with plate and bolting. The field dimensions between rivets and between chord sides cannot be determined accurately until after rivet removal. It is unknown if chord members were fabricated according to original shop drawings. How does Caltrans plan to deal with these rivet spacing dimensions with respect to

preparing shop drawing for new plates, fabricating new plates and installing and bolting of new plates?

See revisions to Section 10-1.22, "Existing Highway Facilities" of Addendum #3.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

66) One of our fabricators will be requiring information for your approved paint products and systems. It would be appreciated if you could answer the following items:

(a) I presume all finish coats are to be field applied.

(b) Can the zinc primer coats not be applied at 4.0 mil dft in one coat instead of 2 coats for a total of 4.0 mil minimum to 8.0 mil maximum? Is there no concern for mudcracking or intercoat delamination if the heavier film thickness prevails?

(c) Is there any requirement for the zinc primer to have slip-coefficient rating of Class A or Class B for faying surfaces?

(a) Yes, all finish coats are to be applied after erection.

(b) Please restate your question and provide the intent of your question.

(c) The Contractor shall choose an inorganic zinc primer from the Department's approved list that also meets the requirements included in the special provisions. Inorganic zinc primers on the list comply with the requirements for Class B.

67) See Truss-Floor Beam Retrofit Detail 4, No. 5, Sheet 648, it shows a detail giving "North Truss D4-Cx Location List."

Truss Layout No. 3, sheet 21, clearly indicates floor beam retrofit at L52 & L56.

(a) Please verify NO truss-floor beam retrofit is required at these locations for the North Truss (Locations L76, L110, & L104 similar).

(b) Please verify location North Truss L96 receives truss-floor beam retrofit. It is located on an expansion joint as are the above locations.

(c) Please provide a list of North Truss locations on the East Span Stiffening Truss that are to have the "Type D4-Cx" retrofit.

See revised sheet 750 of 1049 of Addendum #3.

68) Must all of the diagonal retrofit work in a tower be complete before any of the gusset work in that tower can begin? Or can gusset work begin after only the diagonals which tie into it are complete?

See revised sheet 109 of 1049 of Addendum #3.

69) Ref. sheets 253 thru 256 of 1049: We assume the new material shown on these drawings is paid for at Bid Item #24, "Replace Expansion Joints." Please confirm. Also, there does not appear to be a specification for this item. Please advise.

Bid Item #24, "Replace Expansion Joints" is for the waterline retrofit work described in Section 10-5. See Section 10-5.05 for the description of this item.

70) Ref. special provision, section 10-1.40, "Miscellaneous Metal (Bridge)": Are all high strength rods on project paid for here or only those rods to be bonded or pressure grouted into cored holes?

All high strength rods and studs are included in Item #42, "Miscellaneous Metal (Bridge)."

71) Ref. sheet 358 of 1049, "Cable Tie Details No. 1": We estimate 2.69 LF of wire cable wrapping at each cable band for a total of 43 LF. The Engineer's estimated quantity of 27 LF for Bid Item 36 appears to be in error. Please advise.

The limits of the wire wrapping are shown on sheet 358 of 1049 and the limits of the cable band are shown on sheet 359 of 1049. Based on these limits, the quantity appears correct.

72) Please refer to sheet 112 of 1049 of the contract drawings. Clarify the intent of the note on Stage 3A., second sentence wherein the words "the each"



exist. ("The number of panels with completely installed laterals on each side of the each centerline of span shall remain equal...)).

The restriction on the number of panels with completely installed laterals applies to each span. Therefore to determine the imbalance in a particular span, the number of completed panels is counted from supports to the centerline of that span.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

73) Please refer to the special provisions page 142, "Clean and Paint Structural Steel." In this section it states that the interior of enclosed cell do not have to be Dry Spot Blasted." Are the following conditions considered enclosed?

A. Cells in the lower chord that have upper access openings with hatch covers (typical detail is on sheet 287)

B. Cell in the upper chord, that have lower access openings without hatch covers (typical detail is on sheet 321)

C. Cells in the diagonals with removed lacing bars and new plates with perforations (typical detail is on sheet 397).

Enclosed cells are limited to "chords...enclosed on four sides with solid steel plate from panel point to panel point."

A. No, the cells are not considered enclosed. The detail on sheet 287 of 940 shows a laced chord.

B. No, the cell is not considered enclosed. The detail on sheet 423 of 940 shows a laced chord.

C. No, the cell is not considered enclosed. Enclosed cells are limited to chords, not diagonals.

74) See Sheet 516, "Rocker Post Type 2" and Sheet 517 "Rocker Post Type 3." Do the new cover plates on these drawings have an optional splice plate (none is shown) like the Type 1 cover plate - see Sheet 515? If so, is it the same optional splice plate shown on Sheet 518?

The cover plates for "Rocker Post Type 2" and Rocker Post Type 3" do not have optional splice plates.

75) See West Span Stiffening Truss, Truss Layout No. 8, Sheet 26, it shows a "Type II" connection retrofit at U143. The table on West Span Stiffening Truss Connection, Details No. 11, Sheet 704, does not show location U143 receiving a "Type II" connection retrofit. Please clarify the connection retrofit at U143.

See Addendum #2 regarding revisions to sheets 126 and 127 of 1049 (26 and 27 of 940).

76) Please refer to Caltrans inquiry responses dated June 17, 1999, specifically Item #26. Caltrans states that the specifications do not address whether the temporary stays must remain in place. However, if you look at pages 501 and 517 of the plans, the construction sequence specifically states that the temporary stays are to be removed. Are said stays to be removed?

The temporary stays are to be removed as noted on sheets 603 and 619 of 1049 (sheets 501 and 517).

77) How much weight can be added to the existing structure for access platforms and hoisting devices? Please separate additional allowable weight at towers versus additional weight at mid-span.

See Section 7-1.02, "Weight Limitations," and Section 55-1.05, "Falsework," of the Standard Specifications regarding weight limitations of construction equipment on bridge structures. Also as part of the Structural Steel erection and removal plan, the Contractor shall provide the anticipated loads to be applied to the structure for approval by the Engineer.

78) It is anticipated that the design, fabrication and delivery of the viscous dampers will take in the order of 40 to 50 weeks after final approval and release for fabrication. Allowing front-end time for preparation, submission and approval of shop drawings and time following manufacture for prototype testing (at a facility that does not currently exist) and subsequent installation, it would seem improbable that "all contract work" can be physically complete by September 1,

2000. As a minimum access scaffolds, work decks, temporary power and lighting, lane closure setups, protective boarding for painting operations etc. should be left in place until the damper installation and final painting has been completed.

Is it Caltrans intention that the contractor include money in their bid to pay liquidated damages until the work can be scheduled to be completed

Does Caltrans know of a damper supplier that has committed to manufacturing the specified equipment so as to allow the Contractor to meet the specified schedule?

Please advise if the liquidated damages clause for work between SF anchorage and Pier W1 will be amended by addendum.

See Section 10-1.01, "Order of Work," paragraph 16. The installation of the viscous dampers is excluded from the work to be completed by September 1, 2000.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

79) The following matter are presented for clarification. S.P. 10-1.39 (page 142) states that "The inside surfaces of bolt holes shall be cleaned in accordance with the provision of Surface Preparation Specification No. 1, "Solvent Cleaning," of the Steel Structures Painting Council, and visible rust shall be removed." A copy of the cited callout is enclosed for your review, as well as a copy of the referenced SSPC specification upon which you should note that, "Solvent cleaning is a method for removing...soluble contaminants." and "It is intended that solvent cleaning be used prior to ...surface preparation methods specified for the removal of rust..."

Whereas rust is not a soluble contaminant, is the solvent cleaning at the interior of bolts holes;

In preparation of some other method for the removal of rust?

For the removal of contaminants other than rust, and if so, what other contaminants?

The inside of the bolt holes shall be solvent cleaned as per the special provisions. Contaminants may include the contaminants listed in Surface Preparation Specification No. 1, of the Steel Structures Painting Council, deposited as a result of the Contractor's operation. It is the Contractor's responsibility to choose the method and equipment to remove rust.

80) See Truss-Floor Beam Retrofit Detail 1, No. 3, Sheet 631, it notes: "Seal weld all open joints." No field weld symbols are shown on the drawing. Therefore, is it correct to assume, the noted seal welds are done in the shop fabrication process?

Yes, the noted seal welds shall be done in the shop fabrication process.

81) Please reference contract drawings 606 through 627 of 940 and contract C46305-1 sheet 21 dated 9/19/61. The center traveler rail does not appear on the current retrofit of lower laterals drawings. The rail does appear on the retrofit drawings dated 1961. We have determined that the lower laterals as shown, cannot be erected without the removal of the existing center traveler rail. The geometry does not permit the lateral to be hoisted above the end gussets at the chord or floorbeam. Please furnish a bid item for removal and replacement of the lower roadway center traveler rail.

See revisions to Section 10-1.22B, "Relocate Miscellaneous Facilities" of Addendum #1.

82) Please reference special provision 10-1.39 titled "Clean and Paint Structural Steel," subsection titled "Cleaning," fourth paragraph. The specification clearly eliminates painting of the inside of holes on enclosed cells. What is the treatment inside the cells of the underside of washers, nuts and bolt heads. Enclosed cells are defined as chords. Do the enclosed diagonals and end posts also fall in this category?

The underside of washers, nuts and bolt heads shall be cleaned as specified in subsection "Cleaning," of Section 10-1.39 of the special provisions. If the surface is on the inside of an enclosed tower leg or enclosed cell, cleaning is not required. Chords are shown on the plans and do not include diagonals or end posts.

83) In Stage 3 of the gusset replacement sequence, a filler plate is placed over the existing rivets utilizing 2 inch diameter holes. In Stage 4, the new gusset plate is added first and then we are directed to remove the existing rivets and replace with a high strength bolt. The existing rivets are now covered by the gusset plate and cannot be removed unless we drill out the rivets (this would leave

a doughnut shaped head of the rivet). Is your intent to drill out the head and shank of the rivet?

Yes, the sequence requires the Contractor to drill out the head and shank of the rivet.

84) On structure sheet 79 of 940, the left end view of A-A references Floor Strut Details No. 4 sheet. The referenced work is not on that sheet.

The note references "Floor Strut Bracket Details No. 4." The sheet is 326 of 1049 and was revised by Addendum #2.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

85) On structure sheet 79 of 940, the left end of the elevation refers to Floor Strut Bracket Details No. 3. The detail is not on that sheet.

The note references "Floor Strut Bracket Details No. 3." The sheet is 325 of 1049.

86) On sheet 80, the right end of view A-A refers to Floor Strut Bracket Details No. 5 sheet. This detail is not on sheet 5 details.

The note references "Floor Strut Bracket Details No. 5." The sheet is 327 of 1049.

87) What is the description of Item 550101 - "Structural Steel?"

See additional provisions to Section 10-3.11, "Luminaire Foundation and Pedestal," in addendum no. 3 for the description of this item.

88) On Contract Drawing sheets E-66 through E-68 will new light support foundations/mounting details be required at all light support locations?

New light support will be only required at locations shown on sheets E-66 through E-68.

89) We are requesting approval for use for an alternative field prime paint that has been approved for use by Caltrans on other projects such as the San Mateo Bridge Project. The attached product information sheets are for an aluminum epoxy mastic coating that only requires a minimal amount of preparation prior to application. Previously administered adhesion test have yielded values in excess of 900 psi with the designated ASTM D4541-95, Standard Test Method for Pull-Off Strength of Coatings. The epoxy mastic product currently approved and in use on Caltrans' San Mateo Bridge Project is manufactured by Ameron. We request that either the Ameron product or an equivalent product manufactured by Sherwin Williams be approved for use on the above referenced project. Sherwin Williams has certified that this product is compatible with both the zinc primer and the water based finish coat that is to cover all areas.

Your request has been noted. Alternative paint systems will be subject to review and approval of the Engineer after bid opening.

90) Please reference contract drawings 515, 516 and 517 of 940. Also reference the original design as-builts dated 1933, drawing nos. 14, 15, 18, and 26, of the SF anchorage, Pier W1, Pier W-4 and YB anchorage respectively. The rocker posts at these locations are in a concrete "well" as described on the original as-built drawings. Even with removal of the protective "hood" as shown in phantom on the contract drawings, overhead obstructions (bottom chord of truss and backwall of pier) prevent the erection of the 3/4" cover plates which weigh well over 1 ton each and in the range of 20'-0" long. Additionally there is not enough space between the wall of the "well" and the face of the post to drill the holes for the temporary stays. Please advise.

There is adequate access to erect the cover plates and drill the holes described. It is up to the Contractor to determine the method of construction.

91) Please reference contract drawings 515, 516 and 517 of 940. After completing construction sequence items one through five, the contractor is unable to complete items six and seven. There is no access to the interior of the rocker post after the second cover plate is installed. Bolting of the splice plate and removal of the temporary stays is impossible. Please advise.

There is adequate access to the interior of the rocker posts after the plates are installed. It is up to the Contractor to determine the method of construction.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

92) Refer to drawing sheets 310/1049 and 311/1049 Pier W1 Damper Connection. There is minimal working room behind the existing truss members and bearing connection to drill, bond and insert the #5 bars into the face of the pier as shown on the drawings. How does Caltrans envision construction of the detail for the new concrete buttress and, specifically what type and model of equipment has Caltrans determined could be used to drill the 10" deep holes required for the dowels?

There is adequate access to complete the work shown on the plans. It is up to the Contractor to determine the method construction.

93) Reference Special Provisions, page 137, section 10-1.35, "Remove and Erect Structural Steel":

"All loads not secured to the structure shall be supported at all times by a minimum of two independent hoisting systems or load lines, each having the capacity of supporting the entire load."

It would be impossible in some situations and highly impractical in all others to follow this specification. Prudent safety measures and erection plans will provide the necessary safety factors to protect traffic on adjacent roadways where work is occurring. Will the State allow alternative methods to the two independent hoists? Has the State enforced this specifications on other projects? How have other projects performed steel erection or removal with this requirement?

Thank you for your input. Your concerns have been noted. Alternative construction methods are subject to review and approval by the Engineer after bid opening.

94) Reference is made to S.P. 10-1.39 (page 142), and the paragraph in which the Engineer describes a report titled "Survey of Existing Paint Thickness." This letter is sent in order to request that said report be made available to all bidders, by incorporating said report in an addendum. Additionally, this letter is sent to request that the information in said report be incorporated into the contract, rather than limiting the contractual weight of the report as is described in Section 2-1.03 of the Standard Specifications. In as much as the operation of the bridge precludes the bidders from the performance of testing, the results of which are described in said report, the bidders are unable to comply with the requirements of S.S. 2-1.03, as the bidders are not able to investigate and to be satisfied as to the conditions to be encountered. Where as the thickness(es) of existing paint directly and grossly impacts the cost to perform the work, the bidders are unable to perform such testing on their own account in preparation of their bid, the Engineer must provide it in a form which can be relied upon more heavily than for information only.

Your requests have been noted. The report is currently part of the "Materials Information" and is available to the Contractor as provided in "Clean and Paint Structural Steel," of the Special Provisions. Unless you seen an addendum, please bid per the current plans and specifications.

95) Reference is made to pay item No. 41, Spot Blast Clean and Paint Undercoat, and the Special Provisions and Plans. Whereas P.I. No. 41 is designated as final pay item, Robison-Prezioso, Inc. has performed our own takeoff, yielding a quantity considerably different from that shown on the Engineer's Estimate. Given that the limits of the work are described in the Special Provisions in narrative form, rather than being shown on the plans, it is understandable that one's interpretation of the S.P.'s might vary from another's. Accordingly, consider this correspondence as RPI's request that a breakdown of the Engineer's Estimate be included in an addendum, for information only. Such breakdown should be of sufficient detail that all bidders may clearly understand the Engineer's intent for the scope of work described int he Special Provisions.



See Section 2-1.02, "Approximate Estimate" and Section 9-1.05, "Final Pay Quantities" regarding quantities. Your request has been noted. Unless you seen an addendum, please bid per the current plans and specifications.

96) Section 10-1.22D REMOVE RIVET (p. 99) of the special provisions states "Inside surfaces of holes remaining after rivet removal and reaming shall be painted in accordance to and be measured and paid for as specified for existing steel surfaces in "Clean and Paint Structural Steel" elsewhere in these special provisions." When a rivet is removed, but the hole is not reamed, does the contractor have to paint the inside of existing hole before installing a new bolt?

See Addendum #4 regarding revisions to this paragraph in Section 10-1.22D, "Remove Rivet," of the special provisions.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

97) Many truss members will have temporary horizontal and vertical stay plates installed during lacing replacement (example - North Truss L0, L1, sheet 283). What, if any, dry spot blast cleaning and undercoat painting will be required at these areas?

See Addendum #4 for revisions to the "Clean and Paint Structural Steel" section in the Special Provisions.

98) Ref. SP. 55-3.14E, Page No. 134, Surface Preparation, First Sentence. The Engineer refers to "...surfaces of outside members within the grip..." and (Prospective Bidder) is unable to locate members identified on the plans as "outside members." Additionally, assuming there are "outside members", (Prospective Bidder) has searched for and is unable to locate members identified on the plans as "inside members." Please define an "outside" vs. an "inside" member, or identify the plan sheets upon which either or both occur. Additionally, should the bidders assume that the work described in cited callout does not occur at "Inside members," although the Engineer states that said work occurs at "...all bolted locations..."?

See revisions to subsection "Surface Preparation" of Section 10-1.34, "Steel Structures of Addendum #4.

99) Ref. SP. 10-1.39, Page No. 141, Ninth Paragraph and Page No. 142, Eighth Paragraph. With respect to the inside surfaces of bolt holes at existing surfaces of structural steel and other metals, is the cleaning referred to on Page No. 141 limited to "Solvent Cleaning" as describe on Page 142? Additionally, where is such cleaning not required? Finally, when is cleaning, other than the method described on Page No. 142 required and by what method(s)?

The eighth paragraph on page 142 is an amendment to the Standard Specifications. See Section 1 of the special provisions regarding amendments to the Standard Specifications. Inside of holes shall be cleaned as specified in subsection "Cleaning," of Section 10-1.39 of the special provisions.

100) Ref SP 10-1.39, page no. 142, third paragraph. RPI is unable to locate any areas identified on the plans as an "enclosed tower leg(s)." Additionally, RPI is unable to locate a definition of an "enclosed tower leg" in either the Special Provisions or Standard Specifications. Please identify the locations of all "enclosed tower legs" on the plans and provide a definition of same.

Tower legs are shown on the "West Bay Tower" sheets, 136-142 of 1049.

101) SP 10-1.39, Page 143, Ninth paragraph. The Engineer states that "Phenolic type undercoats shall be applied by brush, daubers or rollers." Should the bidders assume that the application of said undercoat via spray is unacceptable, even if appropriate measures for protection from overspray are taken.

Yes, phenolic type undercoats shall be applied as specified in the special provisions.

102) SP 10-1.39, page 141, second paragraph. Under what conditions will the Engineer extend the contract time as a result of temperature or humidity which exceeds the limits for cleaning and painting?

No time extension as a result of humidity or temperature is anticipated.

103) SP 10-1.39, page 143, tenth paragraph and SS 59-2.03, page 59-4, third paragraph. Should the bidders assume that undercoat shall be applied within four hours after the completion of blast cleaning on a given day, as long as the clean surfaces are kept free of rust and contamination from foreign material, or must a

particular area of steel receive the undercoat within four hours after blast cleaning at that point?

Blast cleaned structural steel areas or members shall receive the specified undercoat within 4 hours after cleaning.

104) SP 10-1.39, page 143, sixth and tenth paragraph. As the first undercoat may require more than one application, and the first undercoat shall be applied to the required dry film thickness within four hours after blast cleaning, should the bidders assume that the second or subsequent application shall be applied within the prescribed time frame regardless of whether or not prior applications have suitably dried?

The Contractor is responsible for applying the undercoat as specified in the Section 10-1.39 of the special provisions and Section 59 of the Standard Specifications. This includes time limits and quality of the application.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

105) SP 10-1.39, page 141, thirteenth paragraph, first sentence. Whom or how shall one determine whether or not an open seam will retain moisture? Is caulking required at contact surfaces of stiffeners, railings and /or built up members, if the seams at said member do not exceed 6 mils?

The Engineer will determine whether or not an open seam will retain moisture.

106) SP 59-2.12, Fifth Paragraph and the special provisions. As the work does not occur within closed buildings and the contract does not prohibit work being performed during daylight hours, shall the bidders assume that all blast cleaning must be performed during daylight hours?

Blast cleaning is not limited to daylight hours. Noise restrictions, traffic control and other terms of the contract may limit the operations for blast cleaning.

107) Please reference special provision pg. 82 chart no. 1, the attached autocad drawing TR-1 and the attached photograph. The new upper laterals cannot be installed without the removal of all three traveler rails. Chart No. 1 limits the contractors work area to three lanes. If only the center rail was taken down the new lateral would have to encroach upon a fourth lane in order to be drifted over the outside traveler rail. We have shown lane delineation on our drawing TR-1. At no time does Caltrans allow a fourth lane to be taken by the contractor. If only the outside rails were removed, the center rail would interfere with the erection of the lateral at the floorbeam. (TR-1). Please furnish a drawing showing traveler rail attachment to the floorbeams. Please furnish a bid item as a means to pay for the removal and replacement of the rail including, but not limited to:

- removal of rivets
- replacement bolts
- replacement hanger hardware (if required)
- removal of bolts/hangers

See Addendum #4 regarding revisions to the lane closure charts in the special provisions. See Addendum #1 regarding revisions to "Relocate Miscellaneous Facilities," of the special provisions.

108) Which item is the expansion joint material on sheets 153-154 of 940 paid under? There is approximately 500,000 pounds of material that is to be furnished but not installed. This alone exceeds the amount in the bid item #43-Misc Metal (Bridge). If it is to be paid under the Structural steel item shouldn't the erect bid item differ from the furnish item? Please advise.

The expansion joint material shown on sheets 253 and 254 of 1049 are included in the quantity for Bid Item #38, "Furnish Structural Steel (Bridge)" and Bid Item #39, "Erect Structural Steel (Bridge)." See Addendum #4 regarding where to transport the material.

109) The wind tongues are shown on the drawings to be retrofitted at piers W1 & W4. Does the note on sheet 2/940 which reads; "Details for East Span Similar, except as noted in As-built and Original Shop Drawing details" mean that the wind tongue at Pier W7 gets the same repair as W1?

The retrofit work for the wind tongue at Pier W7 is shown on sheet 195 of 1049.

110) The diagrams in the upper right hand corners of sheets 128 & 129 show that the bracket modification occurs at 10 locations on sheet 128 and 8 locations on sheet 129. Is this correct? It seems that the brackets are only being modified to allow for the new wind tongue material to pass through the floorbeams. If this is so, then only the brackets that are affected by the wind tongue retrofit need to be

modified, not all the brackets, which is what is shown on the diagrams. Please advise.

The bracket modifications are shown in Sections C-C and D-D on sheet 228 of 1049 and in Sections E-E and F-F on sheet 229 of 1049. See sheet 204 of 1049 for the locations of these sections.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

111) Paragraph 10-1.36 on page 138 refers to red lead paste. Inquiries have not produced a location for this material. Will Caltrans provide a manufacturer list of this material?

Although a list has not been compiled, there are at least two manufacturers that produce red lead paste. They are:

Amsterdam Color Works, Inc.  
1546 Stillwell Avenue  
Bronx, New York 10461  
ph: 718-828-8000  
fax: 718-892-2744  
e-mail: amster@earthlink.net

The Grignard Company  
900 Port Reading Avenue  
P.O. Box 221  
Port Reading, New Jersey 07064  
ph: 732-541-6661  
contact: Etienne (TN) Grignard

112) Drawings showing Truss-Floor Beam Retrofit (sheets. 628 through 696) call for "Seal weld all open joints."

(a) No weld symbols are shown indicating any weld between the existing floor beam and any of the new floor beam brackets. Is Caltrans requiring the new floor beam brackets to be seal welded to the existing floor beam?

(b) No weld symbols are shown where new fill plates are stacked one on top of the other between brackets. See Sheet 630 showing fill plates at Bracket Type D1-Cx. Does Caltrans want the contractor to seal weld around the joints between all fill plates and brackets? Please provide assistance in clarifying the location of where these seal welds are intended.

(a) No, seal welding is not required.

(b) No, seal welding is not required.

113) Reference S.P. 10-1.39, page no. 142, second paragraph, first sentence. Will the contractor be obliged to treat those existing steel surfaces, which will be contact surfaces of structural steel connections, or have member surfaces under bolt heads, nuts or washers of a high-strength bolted connection where said connections are temporary, via dry spot blast cleaning and paint under coating?

See Addendum #4 for revisions to Section 10-1.34 and Section 10-1.39 regarding the surface treatment for temporary connections.

114) Reference S.P. 10-1.39, page no. 141, first paragraph and S.P. 10-4. Will the contractor be obliged to provide suitable enclosures and provisions to artificially control atmospheric conditions inside the enclosures, for the cleaning and painting of seismic monitoring electrical system?

The Contractor shall provide enclosures as required by Section 10-1.39 of the special provisions. See the fourth paragraph of Section 10-4.01, "General." It states that painting for the seismic monitoring electrical system shall be done in accordance with the requirements specified for similar work elsewhere in these special provisions.

115) Reference S.P. 10-1.39, page no. 141, first paragraph and S.P. 10-5. Will the contractor be obliged to provide suitable enclosures and provisions to artificially control atmospheric conditions inside the enclosures, for the cleaning and painting of the waterline retrofit?

The Contractor shall provide enclosures as required by Section 10-1.39 of the special provisions. See subsection "Coatings" in Section 10-5.02 of the special provisions. It states that cleaning and painting shall be done in accordance with Section 59 of the Standard Specifications. Section 59 states that painting shall conform to the requirements specified in the special provisions.

CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999

116) Sheet E-29, Note 1 - Does this note apply to only one location at Sta 54+07 or are there multiple stations affected?

There is only one station effected as depicted.

117) Sheet E-29, Notes 3, 4 & 5 - Are these notes applicable to for the entire length from SFA to YBIA? If so, where is each of the locations?

Note 3 is entire length as depicted. Notes four and five are specific locations as depicted.

118) Sheet E-29, Notes 3, 4 & 5 - Are these notes applicable to for the entire length from SFA to YBIA? If so, where is each of the locations?

Note 3 is entire length as depicted. Notes four and five are specific locations as depicted.

119) Sheet E-21, Note 1 - Cannot determine length of conduit to remove because sheet E-21 is vague about length of conduit on the south side of the roadway.

Length of conduit on south side is exactly the same as on the north side.

120) Sheet E-30, Note 2 - How many splice housing are there?

There are fewer than 12 splice housings.

121) Sheet E-30, Note 3 - Does existing 1" conduit where contractor has to pull TC through have cables/conductors inside or is it empty? If it does contain conductors, will Contractor be able to and be allowed to pull past existing conductors?

Conduit is empty.

122) Sheet E-30 - Where will the TC be located on the bridge? Uper deck? Lower deck? In existing cable tray? etc.

The Contractor may route the new TC wherever it is deemed necessary to satisfy the contract. There is no cable tray. The existing TC is located on the lower deck.

123) Sheet E-28 - How can you go from AC or rigid non-metallic conduit, 2#8 to 12/2 SO cord without the use of a box?

Please note that the plans show the SO cord is run from the last splice condulet (lowest of the three lights) to the bottom light.



CONTRACT NO. 04-0435U4  
ADDED PER ADDENDUM NO. 5 DATED AUGUST 20, 1999